CLAIMS

We claim:

1. In a vehicle comprising a first device and a second device, the first device and the second device being communicatively coupled by an active network, a method of communicating data between the first device and the second device comprising:

receiving from the first device data to be communicated to the second device;

replicating the data to provide a first representation of the data and a second representation of the data;

identifying within the active network a first communication path between the first device and the second device for communicating the first representation; and

identifying within the active network a second communication path between the first device and the second device for communicating the second representation.

2. The method of claim 1, a data interface coupling the first device to the data transport medium, and wherein the step of replicating the data is provided by the data interface.

3. The method of claim 1, further comprising the steps of:

receiving at the second device one of the first representation and the second representation;

identifying the one representation; and

determining a fault in the active network based upon the receipt of the one representation.

4. The method of claim 1, wherein the data comprises a data packet and wherein the step of replicating the data comprises replicating the data packet.

5. The method of claim 1, wherein the active network comprises an active network, the active network comprises a plurality of active network elements coupled by connection media, and the step of replicating the data is provide by one of the plurality of active network elements.

6. The method of claim 1, wherein the step of identifying within the active network a first communication path between the first device and the second device for communicating the first representation; and the step of identifying within the active network a second communication path between the first device and the second device for communicating the second representation, each comprises identifying multiple communication paths for each of the first representation and the second representation.

7. The method of claim 1, wherein the step of identifying within the active network a first communication path between the first device and the second device for communicating the first representation and the step of identifying within the active network a second communication path between the first device and the second device for communicating the second representation, comprises identifying a single communication path for each of the first representation and the second representation.

8. In a vehicle comprising a first device and a second device, the first device and the second device being communicatively coupled by an active network including a plurality of active network elements, a method of communicating data between the first device and the second device comprising:

receiving from the first device data to be communicated to the second device;

replicating the data to provide a plurality of data representations;

identifying a plurality of communication paths within the active network between the first device and the second device;

for each data representation of the plurality of data representations, associating a communication path of the plurality of the communication paths with the data representation; and

communicating each of the plurality of data representations on the associated communication path.

9. The method of claim 8, wherein the step of identifying a plurality of communication paths comprises identifying a corresponding plurality of communication paths to the plurality of data representations.

10. The method of claim 8, wherein the step of identifying a plurality of communication paths comprises identifying multiple communication paths for each of the plurality of data representations.

11. The method of claim 8, a data interface coupling the first device to the active network, and wherein the step of replicating the data is provided by the data interface.

12. The method of claim 8, wherein the step of replicating the data is provided by an active element of the plurality of active network elements.

13. The method of claim 8, wherein the data comprises a data packet, and the step of replicating comprises replicating the data packet.

14. The method of claim 8, further comprising the steps of:

determining a failure to receive at least one of the plurality of data representations at the second device; and

determining a fault in the active network based upon the failure.

15. In a vehicle including a first device and a second device, an active network communicatively coupling the first and second devices, the active network comprising:

a data transport medium for communicating data from the first device to the second device, the data transport medium operable to establish a plurality of communication paths between the first device and the second device;

a data interface coupling the first device and the second device to the data transport medium, respectively, the data interface operable to replicate the data to provide a plurality of data representations; and wherein

the plurality of data representations are communicated from the first device to the second device via the plurality of communication paths.

16. The vehicle of claim 15, wherein the data interface comprises an active network element of the active network.

17. The vehicle of claim 15, wherein the active network comprises a plurality of active network elements coupled by connection media.

18. The vehicle of claim 15, wherein the data transport medium comprises a packet data network.